No. 606,855. Patented July 5, 1898.

H. C. CAMPEN.

ROLLER MACHINE FOR FORMING ROUND CAN BODIES.

(Application filed Feb. 19, 1898.)

(No Model.)

Fig. 1.

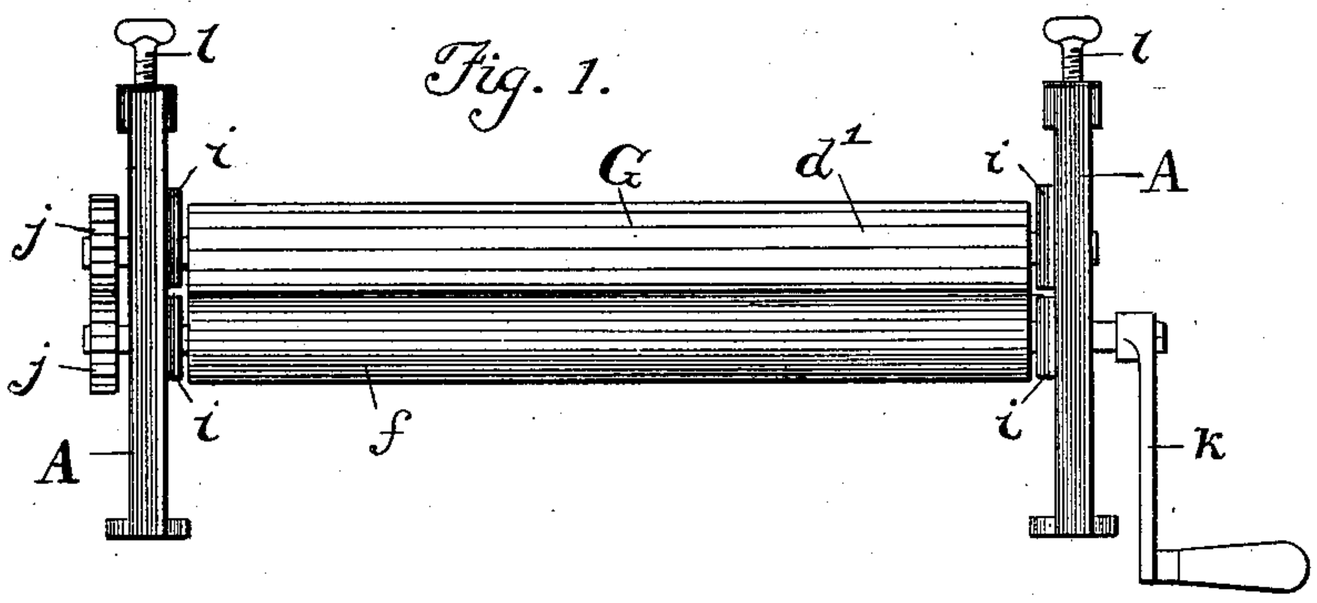


Fig. 2

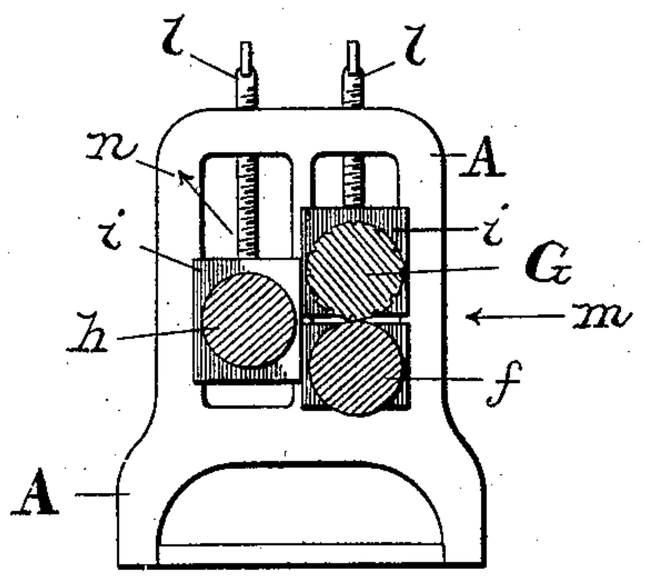


Fig. 3.

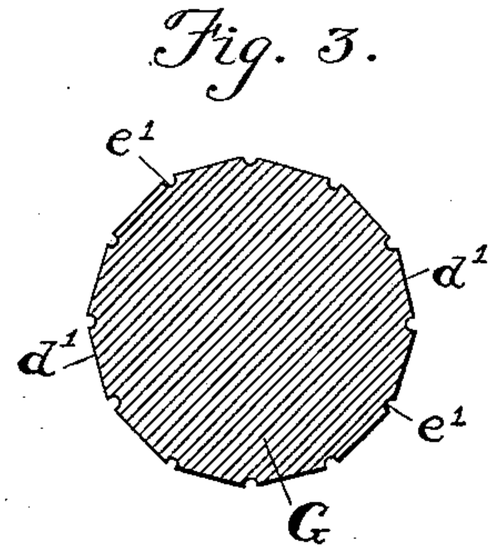
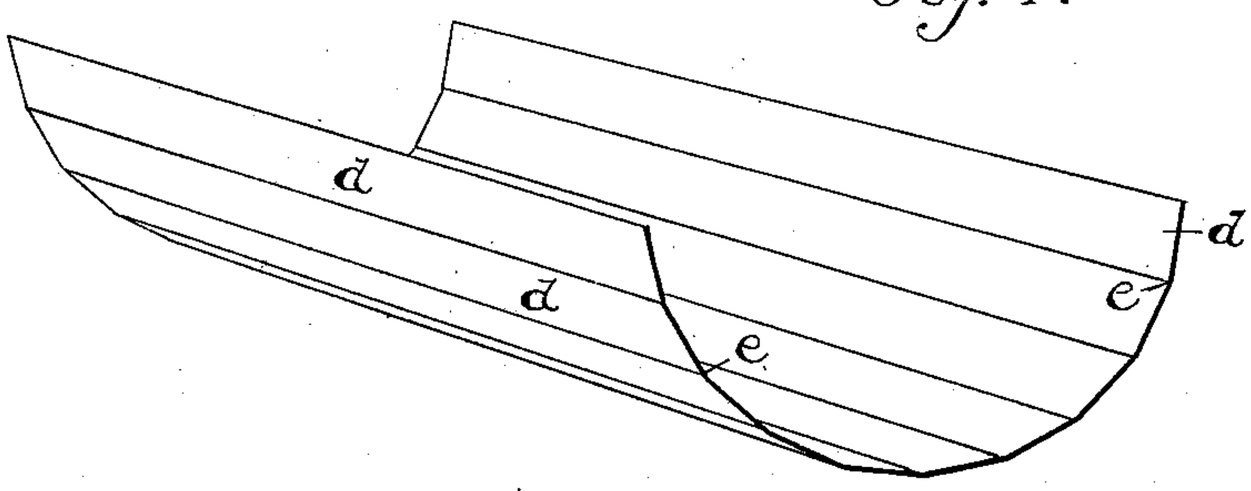


Fig. 4.



Witnesses:-

Lee J. Van Horn.

Charles B. Mann Jr.

Inventor:-

Henry C. Campen

By Chas B. Mann

Attorney.

UNITED STATES PATENT OFFICE.

HENRY C. CAMPEN, OF BALTIMORE, MARYLAND.

ROLLER-MACHINE FOR FORMING ROUND CAN-BODIES.

SPECIFICATION forming part of Letters Patent No. 606,855, dated July 5, 1898.

Application filed February 19, 1898. Serial No. 670,941. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. CAMPEN, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Roller-Machines for Forming Round Can-Bodies, of which the following is a specification.

This invention relates to a machine for forming the bodies for round cans that are used for preserving fruit, vegetables, and oysters.

The object of the invention is to provide improved rollers for converting the flat body-blanks into cylindric shapes that will have numerous narrow flat sides and angles.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of the roller-machine for producing the can-bodies. Fig. 2 is a vertical cross-section of the machine. Fig. 3 is a cross-section, on a larger scale, of one of the rollers. Fig. 4 is a perspective view of a part of a cylindric can-body having numerous flat sides and angles and shows the product turned out by the improved machine.

Heretofore the bodies of ordinary round cans have been converted from a flat tin-plate blank into a cylindric shape by the action of three plain-surfaced rollers, all mounted in bearings.

The object of the present invention is to provide means whereby rollers will convert a flat blank into a shape that will be generally cylindric, as indicated in Fig. 4, but which will have numerous narrow flat sides *d* and angles *e*.

The machine has two end frames A and two ordinary plain-surfaced rollers *f h*, each journaled in boxes or bearings *i* in said frames. The plain roller *f* is geared by pinions *j* with a third roller G, which will now be described. This roller has flat faces *d'* all around it, each face extending longitudinally from one end of the roller to the other. Each flat face is at an angle with respect to the flat faces at its adjoining sides. This roller also has longitudinal grooves *e'*, one groove separating every two of the flat faces—that is to say, the grooves and flat faces alternate, as shown in Fig. 3. A crank *k* is fixed to the journal of one of the geared rollers, and screws *l* are so arranged with respect to the end frames A and the bearings *i*, in which the rollers are journaled, that the position of at least two of the rollers may be changed or adjusted to produce the proper grip effect on the can-body blank as it passes through, and also to produce the desired cylindric curvature on the blank.

In operation a flat blank will enter between the two rollers *f* G, as indicated by the dart *m*, and in its curved form will discharge over the roller *h*, as indicated by the dart *n*. The flat faces *d'* of the roller G are so applied to the blank as to produce the narrow flat sides *d* on the can-body, and the grooves *e'* on the roller take on that side of the blank which becomes the inner surface of the cylinder and at the points where the angles *e* are formed. The grooves *e'* on the roller avoid cutting or breaking the tin-plate blank and also avoid producing an excessive curvature effect on the blank, which would coil the blank more than it ought to be.

A can-body formed by this machine will have greater stiffness and strength and will resist exterior blows or pressure.

Having thus described my invention, what I claim is—

1. A machine for forming round can-bodies having in combination, two plain-surfaced round rollers; and a third roller provided with numerous flat faces all around it, each face extending longitudinally of the roller, whereby a tin-plate flat blank may be run through said rollers and converted into a cylindric shape having numerous narrow flat sides.

2. A machine for forming round can-bodies having in combination, two plain-surfaced round rollers; and a third roller provided with numerous flat faces all around it, each face extending longitudinally of the roller and longitudinal grooves—the flat faces and grooves alternating.

In testimony whereof I affix my signature in the presence of two witnesses.

HENRY C. CAMPEN.

Witnesses:

CHAPIN A. FERGUSON,

CHARLES B. MANN, Jr.